MASKIDASHVILI, I.A.; GVAKHARIYA, V.M.; GORDADZE, G.P.: TOKVI, I.G.

Gamma-ray relay with a magnetic amplifier. Biul.tekh.-ekon.inform.-
Gos.nauch.-issl.inst.nauch. i tekh.inform. no.4:43-44 '62.

(MIRA 15:7)
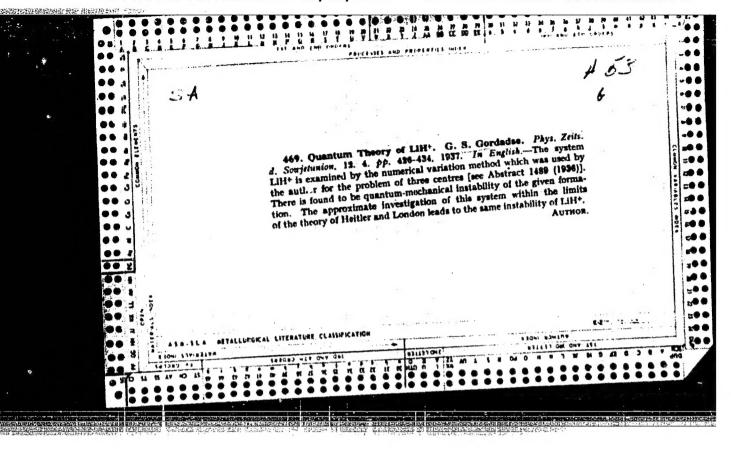
(Electric relays)

GORDADZE, G.P.

Some generalizations of the optimum radioisotope measuring
method. Soob. AN Gruz. SSR 40 no.2:303-310 N '65.

(MIRA 19:1)

1. Institut fiziki AN GruzSSR. Submitted March 8, 1965.

469. **Quantum Theory of LiH+.** G. S. Gordadse. *Phys. Zeits. d. Sowjetunion.* 12. 4. *pp.* 426-434. 1937. *In English.*—The system LiH+ is examined by the numerical variation method which was used by the author for the problem of three centres [see Abstract 1489 (1936)]. There is found to be quantum-mechanical instability of the given formation. The approximate investigation of this system within the limits of the theory of Heitler and London leads to the same instability of LiH+. AUTHOR.

GORDADZE, G.S.

Some eternal equations of the quantum theory of molecules.  Part
1.  Trudy Inst.geofiz.AN Gruz.SSR 11:181-194 '49.      (MLRA 9:8)
(Quantum theory) (Molecules)

GORDADZE, G.S.

Some eternal equations of the quantum theory of molecules.  Part 2.
Trudy Inst.geofiz.AN Gruz.SSR 11:195-203 '49.            (MLRA 9:8)
               (Quantum theory) (Molecules)

GORDADZE, G. S.

LC

USSR/Physics - Quantum Theory                    1950

"Three-Electron Problem of Two Nonequivalent Centers," G. S. Gordadze Inst of Phys and Geophys, Tbilisi, Acad Sci Georgian SSR

"Soob Ak Nauk Gruz SSR" Vol XI, No 3, pp 147-151

Investigates the quantum-mech interaction in the case of a 3-electron bond with nonequivalent centers of LiH$^+$. Discusses 2 limiting cases: Li$^+$~H and Li$^{++}$~H$^-$; the 1st corresponding to repulsion and 2d to stable interaction.

LC

USSR/Physics - Quantum Theory (Contd)            1950

Quantum resonance (Pauling) between these 2 states is practically impossible in consequence of the great difference the energies of these states. Submitted 3 Feb 50 by I. N. Vekua, Act Mem, Acad Sci Georgian SSR.

192T90

192T90

PA 192T90

GORDADZE, G. S.

USSR/Physics – Quantum Mechanics

1950

"Four-Electron Model of LiH," G. S. Gordadze, Inst of Phys and Geophys, Tbilisi, Acad Sci Georgian SSR

"Soob Ak Nauk Gruz SSR" Vol XI, No 4, pp 215-221

Investigates the quantum-mech model of the 4-electron system LiH+H-, in contrast to the usual 2-electron representation (Pauling), by means of electron representation (Pauling), by means of variational methods according to the type s2-s2.

LC

192T93

USSR/Physics – Quantum Mechanics (Contd)

1950

Finds that the energy of dissn of mol LiH+H- into Li+ and H is 50.7 Cal/mol (exptl value: 57.7), and that the theoretical distance of equil equals 2.087 A (exptl: 1.6).

PA 192T93

192793
192793

GORDADZE, G. S.                                              PA165T54

USSR/Nuclear Physics - Varitrons                    Aug 50

"Principle Governing the Interaction and Mass of Var-
itrons: A Letter to the Editor," G. S. Gordadze

"Zhur Eksper i Teoret Fiz" Vol XX, No 8, pp 767-768

Compares masses of varitrons according to: (a) Born's
theory and (b) Alikhanov's and Alikhanyan's experi-
mental data. Submitted 24 Feb 50.
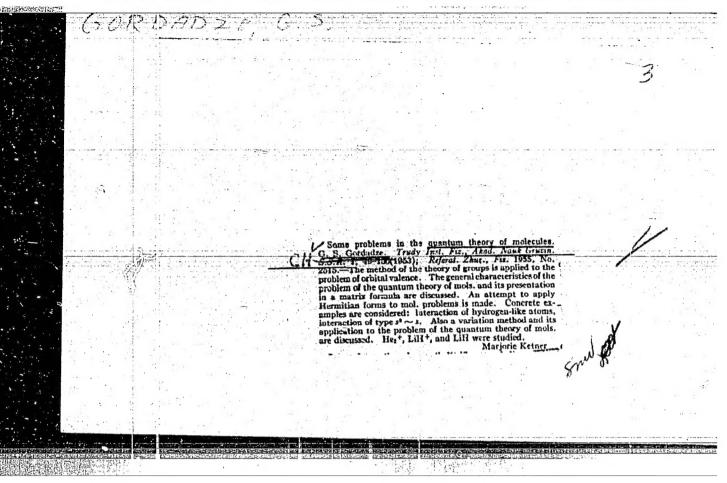
165T54

1. GORDADZE, G. S.

2. USSR (600)

4. Mesotrons

7. Theoretically possible masses of mesons.  Soob. AN Gruz. SSR  12, No. 8, 1951.

9. Monthly List of Russian Accessions, Library of Congress, _____May_____ 1953, Unclassified.

GORDADZE, G. S.

3

✓ Some problems in the quantum theory of molecules.
G. S. Gordadze. *Trudy Inst. Fiz., Akad. Nauk Gruzin.
S.S.R. 1, 49-73(1953); Referat. Zhur., Fiz. 1955, No.
2515.*—The method of the theory of groups is applied to the
problem of orbital valence. The general characteristics of the
problem of the quantum theory of mols. and its presentation
in a matrix formula are discussed. An attempt to apply
Hermitian forms to mol. problems is made. Concrete ex-
amples are considered: interaction of hydrogen-like atoms,
interaction of type $s^2 \sim s$. Also a variation method and its
application to the problem of the quantum theory of mols.
are discussed. $He_2^+$, $LiH^+$, and LiH were studied.
                                          Marjorie Ketner

GORDADZE, G.S.

Category : USSR/Atomic and Molecular Physics – Physics of the        D-1
           Molecule

Abs Jour : Ref Zhur – Fizika, No 3, 1957, No 6191

Author   : Gordadze, G.S.
Title    : Multiply-Semilocalized Molecular Orbits

Orig Pub : Tr. Tbilissk, gos. ped. in-ta, 1955, 10, 557-561

Abstract : An approximate method is proposed for solving the integro-
           differential equations of the self-consistent field for
           the case of the $H_2$ molecule, starting with the wave function
           $U = N (e\bar{b} + \bar{a}b)$ where $e$ is the hydrogen-like veried wave
           function of the ground state of the electron 1 in the field
           of the nucleus a, and $b$ is the corresponding function of
           electron 2 in the field of nucleus b, while $N = \sqrt{2 (1+S^2)}$
           $^{-2}$ is the norm of function 1 of the $H_2$ molecule. Here
           $S = \int eb\, d\tau$. It was found that the minimum energy of the
           molecule in the state $^1\Sigma$ corresponds to a distance $R = 0.752$
           A between the nuclei (the experimental value is 0.741 A).
           The depth of the minimum is 1.128 atomic units. The results
           are a maximum (-0.7921 atomic units) at $R = 7.15$ atomic units.

Card     : 1/1

Gordadze, G.S.

USSR/Atomic and Molecular Physics – Atomic Physics        D-1

Abs Jour : Ref Zhur – Fizika, No 4, 1957, No 8929

Author   : Kakushadze, T.I., Gordadze, G.S., Kokonova, M.G.
Title    : Distribution of Electrons in Atoms of the Rare Earth Metals

Orig Pub : Tr. Tbi-lissk. gos. ped. in-ta, 1955, 10, 573-585

Abstract : The electron configurations of the neutral atoms of the
           lanthanides are taken in the specialized literature to be
           $4f^{0-14}5d^16s^2$ and $4f^{0-14}6s^2$. In the authors' opinion, both
           these configurations exist simultaneously. The first
           gives the magnetic properties and the normal valence of the
           lanthanides, and the second gives the spectroscopic charac-
           teristic of the lanthanides. By virtue of this it is
           necessary to retain in the literature both configurations.

Card     : 1/1

PRIKHOT'KO, A F.

24(7)    p.3    PHASE I BOOK EXPLOITATION    SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1:
Molekulyarnaya spektroskopiya (Papers of the 10th All-Union
Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy)
[L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies
printed. (Series: Its: Fizychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po
spektroskopii. Ed.: Jarer, S.L.; Tech. Ed.: Saranyuk, T.V.;
Editorial Board: Landsberg, G.S., Academician (Resp. Ed., Deceased),
Neporent, B.S., Doctor of Physical and Mathematical Sciences,
Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences,
Fabrikant, V.A., Doctor of Physical and Mathematical Sciences,
Kornitskiy, V.G., Candidate of Technical Sciences, Rayskiy, S.M.,
Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K.,
Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S.,
Candidate of Physical and Mathematical Sciences, and Olauberman,
A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Gordadze, G.S. Anharmonicity of the Potential
Curve of a Hydrogen Molecule                                        317

Kusakov, M.M., S.S. Nifontova, Ye. S. Pokrovskaya, et al.
Study of the Structural-group Composition of
Kerosene Fractions by Means of the Absorption Spectra
in the Near Ultraviolet Region                                     321

Iogansen, A.V. Structural-group Analysis of Saturated
Petroleum Products by Means of Infrared Absorption
Spectra. Determination of $CH_3$-groups, Aliphatic
$CH_2$-groups and Long Chains, $(CH_2)_n$                          327

Gal'pern, G.D., A.N. Kalinskiy, I.A. Musayev, et al.
Study of the Composition of Benzine-ligroin Fractions
by Means of Combined Dispersion Spectra                            329

Gal'pern, G.D., M.M. Kusakov, Ye. S. Pokrovskaya, et al.
Study of the Absorption Spectra of Some Petroleum
Aromatic Hydrocarbons in the Near Ultraviolet and Infra-
red Regions                                                        334

Card 21/30

Gord Adze, G.S.

USSR/Physical Chemistry - Molecule, Chemical Bond.     B-4

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 6881.

Author  : G.S. Gordadze.
Inst    : Georgian Polytechnical Institute.
Title   : Basic State of H₂⁺ an $H_2$ as James, Coolidge and Kokel Functions.

Orig Pub: Tr. Gruz. politekhn. in-t, 1957, No 4 (52), 149-164.

Abstract: The energies of the systems H₂⁺ and $H_2$ were computed as function of the interatomic distance using the simplified James and Coolidge wave function $\Psi = \exp(-\xi/2)$ ($\xi$ is the effective charge, $\xi$ is the elliptic co-ordinate, $\xi = (r_1 + r_2)/R$.) It is noted that the used functions do not give the true course of the potential curve at great R-s. The author assumes that the dissociation energy is determined by the energy, at which the curves of $^1\Sigma$ g and $^3\Sigma$ g states are crossing, and that consequently, the bond energy computed by the variation method using

Card   : 1/2            -1-

GORDADZE, G. S., Doc Phys-Math Sci -- (diss) "Certain
Problems of Molecular Quantum Mechanics." Tbilisi, 1958.
10 pp (Order of Lenin Mos State Univ im M. V. Lomonosov,
Phys Fac), 150 copies (KL 40-58, 112)

2

69151
S/139/59/000/06/007/034
B032/E114

24,6000

AUTHORS: Gordadze, G.S., Dekanosidze, Ye., Makharadze, D., Dididze, Ts.

TITLE: On the Limits of Accuracy of the Molecular Orbital given by James

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 6, pp 42-47 (USSR)

ABSTRACT: The aim of the present work was to study the ground state of the ion $H_2^+$ using the James function (Ref 6) and to compare the potential curve obtained with the aid of this function with the accurate potential curve for this system in the $1s\sigma_g$ (Ref 2). Such a comparison enables an estimate to be made of the accuracy of the molecular orbital (MO) obtained by James. James's MO for the ground $1s\sigma_g$ state of the ion $H_2^+$ is determined by the function given by Eq (1), where $\delta$ and $\alpha$ are the variation parameters and $\lambda$ and $\mu$ are the elliptical coordinates of the electron in the $H_2^+$ ion with the nuclei at a fixed distance $R$ from each other. The elliptical coordinates are defined by Eq (2) in which

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E032/E114

On the Limits of Accuracy of the Molecular Orbital given by James

$r_a$  and  $r_b$  are the distances between the electrons and the nuclei  a  and  b  of the  $H_2^+$  ion.  Using the usual variational method, James found that the binding energy of the ion is  $D(H_2^+) = 2.772$ ev.  The spectroscopic energy (Ref 7) is 2.791 ev.  This satisfactory agreement was obtained with  $\delta = 1.35$,  $a = 0.4475$, and  $R = 1.06$ Å.  Since the binding energy gives such a good agreement with experiment, the problem arises as to whether it is possible to obtain the entire potential curve of the above ion with the aid of the James function (Eq 1).  To carry out this programme the energy of the ion is taken to be in the form of Eq (8) in which the various parameters involved are defined by Eqs (9)-(16).  In order to calculate the parameters  $\delta$  and  $a$  corresponding to the minimum of the energy given by Eq (8), the system of nonlinear algebraic equations given by Eq (17) must be solved with the aid of Eq (8), and the auxiliary functions given by Eqs (9)-(16).  The solution of Eq (17) gives a system of equations of the form of Eq (18) and the substitution of these into Eq (8)

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2/4

69151

S/139/59/000/06/007/034
E032/E114

On the Limits of Accuracy of the Molecular Orbital given by James

gives the potential curve of the ion in the $1s\sigma_g$ state,
i.e. $E = E(R)$. Numerical analysis of the problem for
$R = 1.06$ $\mathring{A} = 2.003$ au showed that $\alpha = 0.4475$ and
$\delta = 1.253$, which satisfies Eq (17) to 1 part in 1000.
The results of the numerical analysis are summarized in
the Table on p 45, in which the first column gives the
value of the distance in au, the fourth column gives the
value of $-E$ according to the present paper (in au), and
the fifth column gives the value of $-E$ given in Ref 2
by Bates, Ledsham and Stewart. The last column gives
the percentage deviation of the results obtained in the
present work. As can be seen, the molecular orbital
given by James may be used in the approximate analysis
of molecular problems only in the internuclear distance
range $1.7 \leqslant R \leqslant 3.0$ au. Moreover, the binding energy
in the $1s\sigma_g$ state as calculated in the present paper
differs by only 0.251% from the experimental value.
There are 2 tables and 8 references, of which 5 are
English and 3 Soviet.

Card
3/4

69151

S/139/59/000/06/007/034
E032/E114

On the Limits of Accuracy of the Molecular Orbital given by James

ASSOCIATION:   Gruzinskiy politekhnicheskiy institut imeni
V.I. Lenina
(Georgian Polytechnical Institute imeni V.I. Lenin)

SUBMITTED:   February 9, 1959

Card 4/4

GORDADZE, G.S.

Dissociation in sensitized photochemical reactions.  Opt. i
spektr. 10 no.4:551-552 Ap '61.                    (MIRA 14:3)
                        (Photochemistry)

RUMANIA

MACOVESCU, Al., Colonel Medical Corps; CHERCIU, I., Major, Medical Corps,
Dr. in Medical Sciences; and GORDIN, C., Major, Medical Corps.

"A New Method for Carrying Out Antibiograms on the Microbial Flora in the
Sputum"

Abstract:  Report on the discovery that the digest of beans is an excellent
medium for culturing even the most fastidious pathogens which were always
thought to grow only in media supplemented with blood or serum.  Table.
Manuscript received 5 September 1965.

1/1

FEDORCHENKO, I.M.- FANAIOTI, I.I.; DERKACHEVA, G.M.; DZYKOVICH, I.Ya.;
GORDAN', G.N.

Studies in the field of friction materials.  Report No.2.
Porosh. met. 5 no.9:65-68  S '65.                    (MIRA 18:9)

1. Institut problem materialovedeniya AN UkrSSR i Institut
elektrosvarki imeni Patona AN UkrSSR.

MAKARA, A.M.; DZYKOVICH, I.Ya.; MOSENDZ, N.A.; GORDAN', G.N.

Investigating the microscopic chemical heterogeneity in welds. Avtom.svar. 18 no.11:5-11  N '65.

(MIRA 18:12)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR.
Submitted April 13, 1965.

PARFESSA, G.I.; PODGAYETSKIY, V.V.; GORDAN', G.N.

Sulfide interlayers in welded joints. Avtom.svar. 18 no.11:12-14
N '65.                                                   (MIRA 18:12)

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR. Submitted
March 1, 1965.

L 24457-66    EWT(m)/EWP(v)/T/EWP(t)/EWP(k)    IJP(c)    JD/HW/WW/JG

ACC NR: AP6012277          (N)          SOURCE CODE:  UR/0125/65/000/011/0005/0011

AUTHOR: Makara, A. M.; Dzykovich, I. Ya.; Mosendz, N. A.; Gordan', G. N.

ORG:  Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE:  Investigation of microscopic chemical heterogeneity in weld joints

SOURCE: Avtomaticheskaya svarka, no. 11, 1965, 5-11

TOPIC TAGS:  welding, x ray analysis, alloy steel, weld evaluation, cooling rate, high strength steel, seam welding

ABSTRACT:  Localized x-ray analysis is used for studying the effect of cooling rate on the degree of chemical nonhomogeneity in welded seams of high-strength steel as a function of the content of basic alloying elements (silicon, manganese, chromium, nickel, molybdenum and tungsten) and also for determining the relationship between this non-homogeneity and the concentration of carbon in the seam, as well as the content of carbon combined with alloying elements. Electroslag, electric arc and electron beam methods were used to give a wide range of cooling rates. Welded specimens of KhGSN, Kh2GSNVM and Kh3M were studied. It is shown that the degree of microscopic chemical heterogeneity in the joints remains nearly constant throughout a wide range of cooling rates and variations in acicular crystallite sizes. The degree of liquation of

UDC:  621.791.053 : 620.192.3

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L 24457-66

8

ACC NR: AP6012277

elements in the weld seams is considerably dependent on carbon concentration, nature of the impurity element and the system used for alloying. The degree of molybdenum liquation increases rapidly with carbon concentration, tungsten shows somewhat less dependence, while the liquation of chromium, silicon, manganese, and nickel is affected only slightly by an increase in carbon content. Molybdenum and vanadium liquate out much more readily than chromium, silicon and manganese; nickel is not segregated in this manner at all in many cases. Further studies are needed on the development of chemical microheterogeneity in weld seams as a function of crystallization conditions, concentration and nature of impurity elements and alloying systems. Orig. art. has: 3 figures, 3 tables.

SUB CODE: 11,13/    SUBM DATE: 13Apr65/    ORIG REF: 008/    OTH REF: 002

Card 2/2 dda

L 23415-66    EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)    IJP(c)    JD/HM/JH

ACC NR: AP6004135          (N)              SOURCE CODE: UR/0125/66/000/001/0010/0014

AUTHOR: Rabkin, D. M.; Dzykovich, I. Ya.; Ryabov, V. R.; Gordan', G. N.

ORG: Institute of Electric Welding im. Ye. O. Paton, AS UkrSSR (Institut elektros-varki)

TITLE: Distribution of elements in the fusion zone during the welding of aluminum with steel

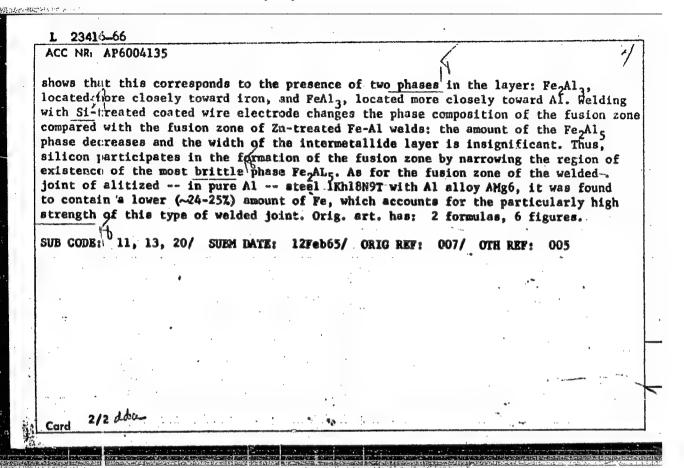SOURCE: Avtomaticheskaya svarka, no. 1, 1966, 10-14

TOPIC TAGS: arc welding, bimetal welding, aluminum, steel, phase composition

ABSTRACT: This distribution was investigated by means of microradiographic and x-ray structural analyses for cases of different pre-welding treatment of both metals. Three types of steel-aluminum welded specimens cut out from the zone of transition from Al to steel were investigated: zinc-plated steel St. 3 (thickness of galvanic coating ~40 μ with aluminum AD1 (automatic double-arc welding); steel St. 3 with the Al alloy AMg5V (automatic argon arc welding, coated wire electrodes containing pure aluminum AV000 treated with 2 and 5% Si); alitized steel 1Kh18N9T with the alloy AMg6 (alitizing performed in pure aluminum AV000, with subsequent argon arc welding with standard coated AMg6 wire). Findings: the welding of zinc-plated steel St. 3 with aluminum AD1 results in a fusion zone containing 38-43% Fe. The constitution diagram

Card 1/2                              UDC: 621.791.7:546.621:669.140

L   23416-66

ACC NR: AP6004135

shows that this corresponds to the presence of two phases in the layer: $Fe_2Al_3$, located more closely toward iron, and $FeAl_3$, located more closely toward Al. Welding with Si-treated coated wire electrode changes the phase composition of the fusion zone compared with the fusion zone of Zn-treated Fe-Al welds: the amount of the $Fe_2Al_5$ phase decreases and the width of the intermetallide layer is insignificant. Thus, silicon participates in the formation of the fusion zone by narrowing the region of existence of the most brittle phase $Fe_2Al_5$. As for the fusion zone of the welded joint of alitized -- in pure Al -- steel 1Kh18N9T with Al alloy AMg6, it was found to contain a lower (~24-25%) amount of Fe, which accounts for the particularly high strength of this type of welded joint. Orig. art. has:  2 formulas, 6 figures.

SUB CODE:  11, 13, 20/   SUBM DATE:  12Feb65/  ORIG REF:  007/  OTH REF:  005

Card   2/2 dba

L 07434-67   EWT(m)/EWP(t)/ETI   IJP(c)   JH/JD/HW

ACC NR:   AP6030266   $(N)$   SOURCE CODE:   UR/0125/66/000/008/0006/0009   47   B

AUTHOR:   Makara, A. M.; Dzykovich, I. Ya.; Gordan', G. N.; Mosendz, N. A.

ORG:   Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE:   Chemical micrononhomogeniety of cast alloys as a function of cooling rate

SOURCE:   Avtomaticheskaya svarka, no. 8, 1966, 6-9

TOPIC TAGS:  cast alloy, aluminum base alloy, copper base alloy, zinc containing alloy, nickel containing alloy, cooling rate, metal crystallization

ABSTRACT:   Local x-ray spectral analysis is used for studying the effect of cooling rate on the degree of liquation of alloying elements in aluminum-zinc (15 wt.% Zn) and copper-nickel (15 wt.% Ni) alloys.  The alloys were melted from 99.99% pure components in alundum and steel crucibles 20 mm in diameter and 30 mm high.  The difference in cooling rates was produced by using cold water, air or by furnace cooling.  Some of the copper-nickel alloys were also poured into tapered water-cooled molds to obtain intermediate cooling rates.  The cooling curves showed a pronounced inflection point corresponding as a rule to the equilibrium liquidus temperature.  This temperature was taken as the end of crystallization on curves where this point was not fixed.  The experimental data show that the degree of liquation of zinc in the Al-Zn alloys and of

Card 1/2                                    UDC; 621.791;620.192.4

ACC NR:    AP6030266                                                                                    $0$

nickel in the Cu-Ni alloys increases sharply as the cooling rate is accelerated reach-
ing a maximum at comparatively low cooling rates (about 1-3°C/sec) where it remains
constant with a further increase in cooling rate.  The development of chemical micro-
nonhomogeniety (dendrite liquation) during crystallization changes the composition of
interdendrite boundaries and the temperature range of alloy crystallization.  This
should have a corresponding effect on the technological properties of the alloy in
this range.  These data may be used for explaining the connection between the type of
phase diagram and the resistance of the alloy to the formation of hot cracks.  The
composition of the dendrite axes in aluminum-zinc alloy is determined by the equili-
brium  solidus point and is independent of cooling rate over a wide range.  Orig. art.
has:  4 figures, 1 table.

SUB CODE:  11/  SUBM DATE:  16Mar66/  ORIG REF:  014/  OTH REF:  002

Card 2/2

GORDANOV, I.I., kand. tekhn. nauk, dots., otv. red.

[Structural mechanics] Stroitel'naia mekhanika; doklady na XIX nauchnoi konfarentsii. Leningrad, 1961. 31 p.    (MIRA 15:6)

1. Leningrad. Inzhenerno-stroitel'nyy institut.
(Structures, Theory of)

SERGIYENKO, S.R.; GORDASH, Ye.T.

Low-temperature conversions of high-molecular-weight aromatic hydro-
carbons of Radchenkovo petroleum. Article No.16. Trudy Inst.nefti 12:
88-101 '58.                                                        (MIRA 12:3)

               (Hydrocarbons)

*GORDASH, Yu.T.*

SERGIYENKO, S.R.; GORDASH, Yu.T.

Chemical nature and compostiion of condensed bicyclic compounds from macromolecular fraction of Radchenkovo petroleum. Article No.12.  Trudy inst. nefti. 10:170-180  '57.            (MIRA 11:4)
        (Petroleum) (Condensation product  (Chemistry))

GORDASH, Yu. T., Cand Chem Sci -- (diss) "Chemical ~~Property~~ *nature*

and ~~Transmutations~~ *Conversions* of High-Molecular Aromatic Hydrocarbons

of Radchenkov ~~naphta~~ *petroleum*." Mos [~~published by~~ *Publishing House of* Acad Sci USSR],

1958. 19 pp (Acad Sci USSR, ~~Naphta Inst~~ *Inst of Petroleum,* 160 copies

(KL 40-58, 113)

8

GORDASH, Yu.T.

5(5); 11(6)

PHASE I BOOK EXPLOITATION    037/221

Akademiya nauk SSSR. Institut nefti

Trudy, t. 12 (Transactions of the Petroleum Institute, USSR, Academy of Sciences, Vol 12) Moscow, Izd-vo AN SSSR, 1958. 395 p. Errata slip inserted. 1,700 copies printed.

Ed.: S. R. Sergiyenko, Professor; Ed. of Publishing House: K. O. Klyuchevoy Tech. Ed.: V. V. Golubev.

PURPOSE: The book is intended for scientists, engineers, and technicians in the petroleum industry.

COVERAGE: This collection of articles describes the results of studies of the chemistry and technology of petroleum and gas conducted in the laboratories of the Petroleum Institute, Academy of Sciences, USSR, in 1956 and 1957. A new section "Petrochemical Synthesis and Technology of Petroleum" has been included in the collection of articles. A list of investigations published by the members of the Institute in 1956 and 1957 and a list of dissertations for the Doctor's and Candidate's degrees prepared in 1956 and 1957 at open sessions of the Academic Council of the Petroleum Institute, Academy of Sciences, USSR, are given.

SERGIYENKO, S.R.; GORDASH, Yu.T.

Chemical nature and conversion of high-molecular homologs of petroleum naphthalene.  Dokl. AN BSSR  2  no.7:294-298  Ag '58.
(MIRA 11:10)

1. Predstavleno akademikom AN BSSR B.V.Yerfeyevym.
(Naphtalene)

SERGIYENKO, S.R.; GORDASH, Yu.T.

Composition and properties of the tar fraction of Radchenkovo petro-
leum. Article No. 15. Trudy Inst.nefti 12:83-87 '58. (MIRA 12:3)
(Tar)

SERGIYENKO, Semen Romanovich; Prinimali uchastiye: SKLYAR, V.T.; GORDASH YU.T.; MAKOROV, L.S.; ZHDANOVA, N.V.; DAVYDOV, B.E.; LEBEDEV, Ye.V.; TETERINA, M.P.; L'VOVA, L.A., vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[High molecular weight compounds in petroleum] Vysokomolekuliarnye soedineniia nefti. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 412 p. (MIRA 12:12)
        (Petroleum--Analysis) (Macromolecular compounds)

5(4),5(3)

AUTHORS:     Sergiyenko, S. R., Kvitkovskiy, L. N.,   SOV/20-128-4-37/65
             Gordash, Yu. T., Petrov, Al. A.

TITLE:       Adsorption Properties of Highly Molecular Hydrocarbons of a
             Mixed Structure

PERIODICAL:  Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4,
             pp 769-772  (USSR)

ABSTRACT:    (Abstracter's Note: Under "adsorption property" the authors
             mean in this case the "ability of being adsorbed"). In the
             introduction, the authors refer to the manifold use of adsorp-
             tion to surfaces of solids in industry and research work,
             particularly to selective adsorption in chromatography. The
             adsorbability of various hydrocarbons is best characterized
             by their adsorption isothermal. The adsorption capacity of
             hydrocarbons of the benzene-kerosene fraction of petroleum
             rises in the order: saturated hydrocarbons $<$ olefines $<$
             $<$ diolefines $<$ monocyclic aromatic hydrocarbons $<$ polycyclic
             aromatic hydrocarbons. The order mentioned is, however, not
             applicable to the chromatographic investigation of highly
             molecular petroleum fractions having complicated molecules
             with a mixed structure, and containing, at the same time,

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Adsorption Properties of Highly Molecular
Hydrocarbons of a Mixed Structure

SOV/20-128-4-37/65

phenyl-polymethylene- and other rings. Therefore, this paper
is concerned with the study of the influence of individual
structural constituents of such molecules which, in part,
were specially synthesized. The adsorption isothermals (Figs
1,2) were statically determined by the contact of the hydro-
carbons dissolved in n-dodecane with silica gel (brand ASK)
or aluminum oxide (quality "for chromatography" of the
Stalinskiy Zavod = Stalino Works) by the method of K. D.
Shcherbakova and A. V. Kiselev (Ref 2). Table 1 indicates
the experimental data. Adsorption increases with the rising
fraction of aromatic and other cyclic carbon atoms in the
total content of carbon atoms. Adsorbability depends on the
ratio between carbon atoms in aromatic rings and carbon atoms
in paraffin chains. The position of aromatic rings within
the molecule and their type are of inferior influence. The
introduction of decaline- or cyclohexane structures into the
molecule, which already contains aromatic rings, raises the
adsorbability. Silica gel adsorbs, a little more selectively
than aluminum oxide, the hydrocarbons containing two aromatic

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Adsorption Properties of Highly Molecular     SOV/20-128-4-37/65
Hydrocarbons of a Mixed Structure

rings. The results suggest that a chromatographic separation
of hydrocarbons, with the same molecular weight but different
content of aromatic rings, is well possible. There are
2 figures, 1 table, and 3 Soviet references.

ASSOCIATION:    Institut geologii i razrabotki goryuchikh iskopayemykh
Akademii nauk SSSR (Institute of Geology and Mining of
Mineral   Fuels     of the Academy of Sciences, USSR)

PRESENTED:    May 25, 1959, by M. M. Dubinin, Academician

SUBMITTED:    May 23, 1959

Card 3/3

GORDASH, Yu.T.; SERGIYENKO, S.R.; SEMYACHKO, R.Ya.; REKUNOVA, E.A.

Chemical nature of the macromolecular hydrocarbon portion of
Mukhanova petroleum. Dokl. AN BSSR 5 no.3:112-117 Mr '61.

(MIRA 14:3)

1. Institut fiziko-organicheskoy khimii AN BSSR. Predstavleno
adademikom AN BSSR B.V. Yerofeyevym.
(Mukhanova region--Petroleum--Analysis)

GORDASH, Yu.T.; LARYUTINA, E.A.; SEMYACHKO, R.Ya.

Sulfonation of aromatic hydrocarbons by the dioxane-sulfotrioxide complex. Dokl.AN BSSR  6  no.4:237-239  Ap '62.    (MIRA 15:4)

1. Institut fiziko-organicheskoy khimii AN BSSR.  Predstavlenc akademikom AN BSSR B.V.Yerofeyevym.
          (Hydrocarbons)      (Sulfonation)

AUTHORS:      Gordash, Yu. T., Shevchik, A.M., Laryutina, E.A.,
              Pavlyuchenko, K.V.

TITLE:        The groups of sulfur-containing organic compounds in
              the benzene-kerosene fractions of Mukhanov oil

PERIODICAL:   Akademiya nauk BSSR. Doklady., v.6, no.7, 1962,
              442-444

TEXT:         Commercial petroleum from Mukhanov was fractionated in-
to 12 fractions, the highest fraction boiling between 325° and 350°.
The weight percentages of sulfur contained in mercaptanes (mercaptane
sulfur), sulfides (sulfide sulfur), disulfides (disulfide sulfur) and
other compounds (remainder sulfur) were determined for each fraction.
Fractions boiling up to 100° contained mainly remainder sulfur, where-
as fractions boiling between 100° and 225° contained mainly sulfide

Card 1/2

S/250/62/006/007/002/002
I032/I242

The groups of sulfur containing ...

sulfur.  In no fraction did the mercaptane sulfur and disulfide
sulfur account for more than 10% of the total sulfur.  There is 1
figure and 2 tables.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR
             (Institute of Physical-Organic Chemistry, AS BSSR)

PRESENTED:   by B.V. Yerofeyev, Academician AS BSSR

SUBMITTED:   December 12, 1961

Card 2/2

PAVLUCHENKO, K.V. [Paulluchenka, K.V.]; SHEVCHIK, A.M. [Shevchyk, A.M.];
GORDASH, Yu.T. [Hordash, IU.T.]; TELEGINA, T.K. [Tsiatsehina, T.K.]

Kinetics of the catalytic transformation of octylmercaptan.
Vestsi AN BSSR. Ser. fiz.-tekh. nav. no.4:78-84 '63.
(MIRA 17:12)

SKLYAR, V.T., kand. khimicheskikh nauk; GORDASH, Yu.T., kand. khimicheskikh nauk; KAL'CHENKO, V.M.

Comparative study of the demulsification capacity of certain ionogenic surfactants.  Neft. i gaz. prom. no.2:61-63  Ap-Je '64.
(MIRA 17:9)

L 41165-65    EWT(m)/EWP(±)/EWP(b)    IJP(c)    JD    S/0286/65/000/003/0041/0041

ACCESSION NR: AP5007171

AUTHOR: Lebedev, Ye. V.; Sklyar, V. T.; Perekrest, A. N.; Gordash, Yu. T.;

TITLE: A method for producing highly aromatized material for producing
Class 23, No 167933

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 41

TOPIC TAGS: carbon black, aromatic compound

ABSTRACT: This Author's Certificate introduces a method for producing highly
aromatized material for the production of carbon black. The material is made from

used as the petroleum light distillate.
tillate.

ASSOCIATION    none

Card 1/4        SUBMITTED: 18 JAN 64

L 36246-65   EWT(m)/EPF(c)/EWP(j)/ EWA(d)/T   Pc-4/Pr-4   RH
                                        S/0065/84/000 010/0037/0040

AUTHOR· Gordash, Yu. I., Sklyar, V. T., Serov, V. A.

TITLE:  Petroleum desalination by use of complex pentae··
carboxylic acids as S ··· ··· ·· ····· ·

SOURCE: Khimiya i tekhnologiya topliv i nasel, no. 1

TOPIC TAGS: petroleum desalination, surface active compound, ···
tol complex ester, esterification, carboxylic acid, hydroxyl group

ABSTRACT· The use of non-ionogenic surface-active compounds ·· ··· ·
desalination is commonly known and the authors discuss the effect of pentaerythri-
··· ·· ···· ····· ·· ·· ···· ·· ··· ·· ·· ··· ··· ·· ·· ·· ··· ·· ·· ·· ·· ·· ·· ···· ··· ·· ·· ·· ··· ··· ·· ·· ···· ···· ·· ···· ·· ··· ·· ·· ·· ·· ··· ·· ··· ·· ···· ··· ··· ·· ·· ···· ·· ·· ·· ·· ·· ·· 3500 ·· 1700 ·· ·· ·· ·· ··
nic, butyric and ·····················
displayed a very weak absorption band which is characteristi·

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S. 295-65

ACCESSION NR· AP4047389

groups. These esters were tested as desalination agents of Ukrainian petroleums. The optimal concentration of the complex esters was found to be ___ to 0.0 % ___ _____ Extending the _____ ___ _____ _____ ___ ___ ___ _____ __ _____ ___ ___ _____ of the degree of _____ of free OH groups in _____ ___ that an increase in the number of free OH groups in complex est- desalination of petroleum. Mixtures of pentaerythritol tri- and tetra_____ ___ butyri_ a___ gave the best results. The findings of the authors ___ for the development of more effective deemulsifiers to desalinate petroleums __ any Soviet deposit. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: UkrNIIgiproneft'

SUBMITTED: 00                    ENCL: 00               SUB CODE: GC

NR REF SOV: 004                  OTHER: 004

Card 2/2 JO

GORDASHEVSKIY, A.V., agronom.

Valuable fallow crop. Zemledelie 6 no.3:78-80 Mr '58.
(MIRA 11:4)

(Corn (Maize))

GORDASHEVSKIY, P. F. —

"The Effect of Certain Mineral Elements on the Quality of Calcareous- Puzzuolanic Cements."  Can Tech Sci, Moscow Inst of Engineers of Municipal Construction, 19 Oct 54.  (VM, 8 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 491, 5 May 55

GOEDASHEVSKIY, P.F., kand.tekhn.nauk

Changes in the chemical composition of ground waters after
the construction of Tsimlyansk Reservoir.  Gidr. stroi. 30
no.9:33-35 S '60.                                (MIRA 13:9)
  (Tsimlyansk Reservoir region--Water, Underground)

GORDASHEVSKIY, P.F., kand.tekhn.nauk

Properties and possibilities of using phosphogypsum.  Stroi. mat. 6
no.12:32-34 D '60.                                      (MIRA 13:11)
                    (Binding materials)

GORDASHEVSKIY, P.F., kand.tekhn.nauk

Studies of some properties of structural phospho-gypsum. Sbor.
trud. ROSNIIMS no.20:108-118 '61. (MIRA 16:1)
(Gypsum—Testing)

GORDASHEVSKIY, P.F., kand.tekhn.nauk; BROYDO, TS.I., inzh.;
STOLOVITSKAYA, M.M., inzh.

Phosphorus anhydrite binding material. Stroi.mat. 8 no.7:34-35
Jl '62.                                                    (MIRA 15:8)
(Binding materials)

GORDASHEVSKIY, P.F., kand. tekhn. nauk; KORNYUSHINA, A.P., inzh.;
SMOLIN, N.P., inzh.

Kilning processes must be determined depending on the use
of lime. Stroi. mat. 9 no.6:8 Je '63. (MIRA 17:8)

GORDASHEVSKIY, P.F., kand.tekhn.nauk

Results of the thermal and roentgenographic analyses of gypsum.
Stroi.mat. 9 no.12:28-30  D  '63.                    (MIRA 17:3)

GORDASHEVSKIY, P.F., kand. tekhn. nauk

High strength gypsum; prospects for its manufacture and use.
Stroi. mat. 10 no.10:9-10  O '64.

(MIRA 18:2)

1. Rukovoditel' laboratorii gipsa Gosudarstvennogo vsesoyuznogo
nauchno-issledovatel'skogo instituta stroitel'nykh materialov
i konstruktsiy.

LOBOV, V.P.; YEFIMOV, G.A. [IEfimov, H.O.]; GORDAYA, M.V. [Horda, M.V.]

Herbicidal properties of diphenylethane derivatives. Dop. AN
URSR no.5:682-686  '64.
(MIRA 17:6)

1. Institut organicheskoy khimii AN UkrSSR. Predstavleno akademikom
AN UkrSSSR D.K.Zerovym.

L 64349-65    EWT(d)/EWT(m)/FPF(c)/IWP(f)/T/EWA(c)    WB

ACCESSION NR: AP5023494                                RU/0018/64/000/010

AUTHOR: Gordeev, P. A.; Siskin, V. G.

TITLE: Method of calculating the heat evolved in diesel engines by means indicator diagrams

SOURCE: Constructia de masini, no. 10, 1964, 534-537

TOPIC TAGS: diesel engine, heat of combustion, combustion engineering

ABSTRACT: A theoretical derivation of a formula for determining the heat released in Diesel engines. The formula makes use of the indicator diagram of the engine and takes into account the quantitative and qualitative variations in the combustion mixture. Orig. Art. Incl.: 38 formulas and 1 tables.

ASSOCIATION: none

SUBMITTED   00                 ENCL:  00               SUB CODE.  FR, TI

NR REF SOV: 000                OTHER:  000             JPRS

1/1

3.9300

87893

P/026/60/008/003/001/004
A224/A026

**AUTHORS:** Droste, Zofia; Gordejuk, Józef

**TITLE:** A Simplified Method of Determining the Frequency Characteristic $U_1$ at $\delta^2 > 0$

**PERIODICAL:** Acta Geophysica Polonica, 1960, Vol. 8, No. 3, pp. 200 - 205

**TEXT:** The authors present a simplified method of determining the frequency characteristic $U_1$ for the initial impulses of the seismic wave recorded by a seismograph with galvanometric registration, in the case when $\delta^2 > 0$. Starting with the method described in a previous work (Ref. 1), the authors derive a simplified system of equations and apply them to determine the $U_1$ characteristic of the SK-58 seismograph having the following constants: $T_1 = 2.2$ sec; $T_2 = 0.32$ sec; $D_1 = 0.70$; $D_2 = 3.00$. There are 2 figures and 4 references: 3 Soviet and 1 Polish.

**ASSOCIATION:** Institute of Geophysics of the Polish Academy of Sciences

**SUBMITTED:** December 1, 1959

Card 1/1

ACHILD E, A. G. --

"Morphological Changes in the Peripheral Portion of the Somatic Nervous System During Secondary Tuberculosis." Cand Med Sci, Kishinev State Medical Inst, Kishinev, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

GONDELADZE, A.S., (Kishinev)

Morphological changes in the peripheral segment of the stomatic nervous system in secondary tuberculosis. Arkh.pat. 18 no.2:106-107 '56                                              (MIRA 11:10)

1. Iz kafedry patologicheskoy anatomii (zav. prof. F.Ye. Ageychenko [deceased]) Kishenevskogo gosudarstvennogo meditsinskogo instituta.
            (TUBERCULOSIS, pathology,
                    nervous system, peripheral segment of somatic system
                    (Rus))
            (NERVOUS SYSTEM, PERIPHERAL, in various diseases,
                    tuberc., peripheral nerves of somatic system (Rus))

GORDELADZE, A.S.

Experimental skin cancer in rabbits caused by 9,10-dimethyl-1,2-benzanthracene. Zdravookhranenie 2 no.3:35-39 My-Je '59.
(MIRA 12:10)

1. Iz kafedry patologicheskoy anatomii (zav. - kand.med.nauk V.Kh.Anestiadi) Kishinevskogo meditsinskogo instituta. Nauchnyy rukovoditel' - prof.D.I.Golovin.
(BENZANTHRACENE)    (CARCINOGENS)    (SKIN--CANCER)

SLEPYKH, A.S., dotsent; GORDELADZE, A.S., dotsent

Morphological and histochemical characteristics of the uterine
cicatrix following cesarean section. Akush. i gin. 39 no.5:103-
110 S-0 '63.                                              (MIRA 17:8)

1. Iz kafedry akusherstva i ginekologii i kafedry patologi-
cheskoy anatomii Altayskogo meditsinskogo instituta (nauchnyy
rukovoditel' - chlen-korrespondent AMN SSSR prof. L.S.
Persianinov).

DEDERER, Yu.N.; POLUSHKIN, B.V.; GORDELADZE, A.S. (Barnaul)

Changes in the serotonin content of the gastrointestinal tract
in experimental intestinal obstruction in rats. Pat. fiziol.
i eksp. terap. 8 no.1:52-55 Ja-F '64.                    (MIRA 18:2)

1. Kafedry gospital'noy khirurgii, patofiziologii, patoanatomii
Altayskogo meditsinskogo instituta, Barnaul.

GOL'DINOV, L.R.; GORDELADZE, G.E.; KHASHBA, M.L., red.; KHOSHTARIYA, V.G.,
   red. izd-va;

  [Soviet Abkhazia] Sovetskaia Abkhaziia.  Tbilisi, Gos. izd-vo
  "Sabchota Sakartvelo," 1960.  1 v.    (MIRA 14:10)
       (Abkhazia—Views)

GORDELADZE, I.E.

    We shall carry out our tasks.  Kons. i ov. prom. 16 no.10:
6-7 0 '61.                                                        (MIRA 14:11)

1.  Agarinskiy konservnyy zavod.
        (Agara—Canning industry—Equipment and supplies)

GORDEEV, P.A.; SISKIN, V.G.

Method of calculating the heat evolved in diesel engines
by the aid of indicator diagrams.  Constr mas 16 no.10:
534-537  O '64.

GORDELADZE, A.S. (Barnaul)

Method for staining lipids with phenol-acetic Sudan III.
Arkh. pat. 25 no.10:54-55 '63.                    (MIRA 17:7)

1. Iz kafedry patologicheskoy anatomii Altayskogo meditsinskogo
instituta.

GORDELADZE, Sh.G.

Determination of the mass of shells of novae from line intensities in the Balmer series. Dop.AN URSR no.2:9-13 '48.        (MLRA 9:9)

1.Predstavleno diysnim chlenom AN URSR O.Ya.Orlovim.
            (Stars, Nov)

GORDELADZE, Sh. G.

HORDELADZE, Sh.H.; BARABASHOV, M.P., diyanyy chlen.

Chemical composition and transparency of novae envelopes. Dop.AN URSR no.3:181-183 '51.

(MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Barabashov). 2. Holovna astronomichna observatoriya Akademiyi nauk Ukrayins'koyi RSR (for Hordeladze).

(Stars, New)

GORDELADZE, Sh.G.

Conference of Ukrainian astronomers. Visnyk AN URSR 24 no.11:78
N '52.    (Ukraine--Astronomy)                          (MLRA 9:9)

GORDELADZE, Sh.G.

In the Astronomy Committee of the Academy of Sciences of the Ukrainian S.S.R. Visnyk AN URSR 24 no.11:73 N '52. (MLRA 9:9)
(Ukraine--Astronomy)

GORDELADZE, Sh. G.

Dissipation of Mass During the Surge of Novae. Izv. Glav. Astron. Observ AN Ukrainian SSR, I, 1953, 67-84.

The amount of matter ejected during the surge of a Nova is analyzed. Suggests new methods consisting in determination of density of the stellar shell by the study of forbidden lines. Another method consists in the determination of density from the absolute intensities of the Balmer Lines. (RZhAstr, No 9, 1954)

SO: W-31128, 11 Jan 55

General, Scientific-Popular Literature (1529)
Nauki i zhittya, No 9, 1953, pp 28-30
Gordeladze
"Is There Life of Other Planets?" (Ukrainian)

No abstract.

SO: Referativnyy Zhumal—Astronomiya i Geodeziya, No 1, Jan 54;
(W-30785, 28 July 1954)

GORDELADZE, Sh. G.

Enlarged plenum of the Astronomical Concil of the Academy of
Sciences of the Ukrainian S.S.R. and of the Department of
Physical, Mathematical, Chemical and Geological Sciences of
the Academy of Sciences of the Ukrainian S.S.R. Visnyk AN URSR
26 no.5:76-78  My '55.                        (MIRA 8:8)
                    (Ukraine--Astronomy)

GOEDRIADZE, Sh.G.

Problems on the nature of "protostars". Visnyk AN URSR 26 no.11:37-43
N '55.                    (Stars)                    (MIRA 9:2)

GORIELADZE, Sh.G.

Two- and three-chamber photographic telescopes of the Main Astro-
nomical Observatory of the Academy of Sciences of the Ukrainian
S.S.R. Izv.Glav.astron.obser. 1 no.2:32-36 '56.     (MLRA 9:8)
(Telescope) (Astronomical photography)

GORDELADZE, Sh.G.

Scientific conferences and expeditions.   Izv.Glav.astron.obser. 1
no.2:105-109 '56.                                         (MLRA 9:8)
                    (Ukraine--Astronomy)

GORDELADZE, Sh.G.

Method for determining masses of novae. Izv. Glav. astron. obser.
AN URSR 2 no.1:92-94 '57.

(MIRA 11:2)

(Stars, New)

GURTOVENKO, E.A.; GORDELADZE, Sh.G.

Three-color colorimetry of the integral brightness of Mars based
on observations made in 1956 [with summary in English]. Astron.
zhur. 34 no.6:959-961 N-D '57.                                    (MIRA 11:2)

1. Glavnaya astronomicheskaya observatoriya AN USSR, Kiyev.
                                    (Mars (Planet))

YAKOVKIN, Avenir Aleksandrovich. Prinimali uchastiye: GORDELADZE, Sh.G.,
nauchnyy sotrudnik; KOLCHINSKIY, I.G., nauchnyy sotrudnik;
SAYKOVSKIY, M.I., nauchnyy sotrudnik; KOLCHINSKIY, I.G., kand.
fiziko-matemat.nauk, otv.red.; LABINOVA, N.M., red.izd-va;
SKLYAROVA, V.Ye., tekhn.red.

[Artificial earth satellites] Iskusstvennye sputniki zemli.
Kiev, Izd-vo Akad.nauk USSR, 1958.  46 p.     (MIRA 12:9)

1. Glavnaya astronomicheskaya observatoriya AN USSR (for Gorde-
ladze, Kolchinskiy). 2. Institut teploenergetiki AN USSR (for
Saykovskiy).
      (Artificial satellites)

2. 1550
3. 1510

81465

SOV/35-59-8-6458

Translation from:  Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,
Nr 8, p 52

AUTHORS:      Gordeladze, Sh.G., Gurtovenko, E.A.

TITLE:        Three-Color Colorimetry of Mars Integrated Brightness During
              the 1956 Opposition

PERIODICAL:   Izv. Gl. astron. observ. AS UkrSSR, 1958, Vol 2, Nr 2,
              pp 140 - 154

ABSTRACT:     Photographic observations of Mars were performed with a three-
              camera astrograph of the Main Astronomical Observatory AS
              UkrSSR from September 1, 1956, to October 2, 1957.  Their purpose
              was determination of integrated brightness in three regions of
              the spectrum:  blue, yellow and red, as well as studying the
              variations in the planet's brightness with its phase.  The star
              $\alpha$ Lyr served as a comparison star.  The photometry of 60 focal
              negatives was made with a microphotometer of the Markov type.
              The Pleiades were used for photometric graduation, which were
Card 1/3     photographed in such a way that Mars and Vega were both on the

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SOV/35-59-8-6458

Three-Color Colorimetry of Mars Integrated Brightness During the 1956 Opposition

characteristic curve.  In determining the stellar magnitudes of Mars, corrections for the differences in exposures were calculated from Schwarzschild's formula the exponent of which was determined for each region of the spectrum from additional observations.  Corrections for differential extinction were obtained with the values of zenith attenuation taken from other sources.  Systematic errors of the photometric processing are analyzed.  The mean error in Mars brightness determination for an individual date amounted to $\pm$ $0^m05$.  Photographic, photovisual and photored magnitudes of the planet $m_o$, reduced to the mean opposition, are presented in a table and in graphs.  The final mean results are as follows:

| $\lambda_{eff}$ | $m_o$ | $\gamma$ | $A_g$ | $A_s$ |
|---|---|---|---|---|
| 430 | -1.66 | $0^m.030$ | 0.230 | 0.083 |
| 546 | -3.47 | 0.054 | 0.622 | 0.069 |
| 622 | -4.44 | 0.058 | 1.053 | 0.119 |

They show that this opposition was characterized by anomalously low values of

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81465

SOV/35-59-8-6458

Three-Color Colorimetry of Mars Integrated Brightness During the 1956 Opposition

$m_0$, very high mean values of the phase coefficient, $\mathcal{T}$, high geometric albedo $A_g$, and low spheric albedo $A_s$. A rapid decrease of color index with time was observed, from + $1^m.8$ in opposition to $+0^m.8$ in January 1957; its change with the phase angle was rectilinear with a gradient of $0.^m026$ per $1^o$. Authors came to the conclusion that the peculiarities discovered were real. They were caused either by the properties of the scattering indicatrix of the planet's very turbid atmosphere or by changes in it, which distort the phase curves. There are five references.

I.I. Lebedeva

Card 3/3

Translation from:  Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, Nr 11, p 59
(USSR)

AUTHORS:    Gordeladze, Sh.G., Chuprina, R.I.

TITLE:      Relative Spectrophotometry of the Flare Spectrum, Obtained at a Time of a Total Solar Eclipse on the 30th June 1954

PERIODICAL:  Izv. Gl. astron. observ. AS UkrSSR, 1958, Vol 2, Nr 2. pp 155 - 159

ABSTRACT:   Information on the processing of the flare spectrum, obtained by the expedition of the Main Astronomical Observatory, AS UkrSSR, with the aid of a prismatic camera (F = 170 cm, D = 15 cm, 36° flint prism). The dispersion at $H_\beta$ amounted to 62.1 A/mm. The calibration was accomplished according to the marks of the tubular photometer. In order to standardize, the incadescent lamp spectrum was photographed with a known distribution of energy. Relative intensities of the lines $H\alpha$ - $H\delta$, $D_3$, H and K (with respect to $i_{H\beta}$) were obtained. The recording of the spectrum and the tables of the intensity of the lines are cited.

V.F.Ye.

Card 1/1

BURKSER, Ye.S. [Burkser, IE.S.]; GORDELADZE, Sh.G., kand.fiz.-mat.nauk;
CHEREDNICHENKO, V.I. [Cherednychenko, V.I.]; kand.fiz.-mat.nauk;
SHUGAYLIN, O.V.[Shuhaylin, O.V.], kand.filos.nauk

Evidences of evolution of small bodies in the solar system
("Physical characteristics of comets" [in Russian] by S.K.
Vsekhsviatskii, Reviewed by IE.S. Burkser and others. Visnyk AN
URSR 29 no.11:70-73  N '58.                           (MIRA 11:12)
                         (Comets)    (Vsekhsviatskii, S.K.)

VSEKHSVYATSKIY, Sergey Konstantinovich; TSESEVICH, Vladimir Platonovich;
GORDELADZE, Sh.G.; VER, A.Ya., red.

[Soviet astronomy on sun, stars, and planets] Radians'ka
astronomiia pro sontse, zirky ta planety. Kyiv, 1959. 36 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znan'
Ukrains'koi RSR. Ser.5, no.8)                    (MIRA 12:8)
                        (Astronomy)

TSESEVICH, Vladimir Platonovich [TSesevych, V.P.]; GORDELADZE, Sh.G.
[Hordeladze, Sh.H.], kand.fiz.-matem.nauk, glavnyy red.

[First results of the International Geophysical Year] Pershi
pidsumky mizhnarodnoho geofizychnoho roku. Kyiv, 1959.  49 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znan'
Ukrains'koi RSR.  Ser.5, no.23)                    (MIRA 13:2)
   (International Geophysical Year, 1957-1958)

GORIELADZE, Sh., kand.fiz.-mat.nauk, dots.

Automatic interplanetary station. Nauka i zhyttia 9 no.10:
8-9 0 '59.                                    (MIRA 13:2)
(Space stations)

PHASE I BOOK EXPLOITATION   SOV/5466

Akademiya nauk Ukrayins'koyi RSR.   Holovna astronomichna observator-
iya.

Izvestiya. t. 3, vyp. 1 (News of the Main Astronomical Observatory.
    v. 3, no. 1)  Kiyev, 1960.  141 p.  1,000 copies printed.

Editorial Board:  Resp. Ed.:  A. A. Yakovkin, Sh. G. Gordeladze, and
    I. G. Kolchinskiy; Ed. of Publishing House:  N. M. Labinova; Tech.
    Ed.:  A. A. Matveychuk.

PURPOSE:   This book is intended for astronomers.

COVERAGE:  This is a collection of 15 articles in the field of
astronomy written by members of the Glavnaya astronomicheskaya observa-
toriya AN UkrSSR (Main Astronomical Observatory AS UkrSSR).  The arti-
cles are based on original research carried out by the authors and
discuss the following topics:  the precise position of stars and the
lesser planets; the total solar eclipse of June 30, 1954; corpuscular
streams of solar radiation (theoretical analysis); phenomena of the
moon's rotation (latest observations); luminescence
Card 1/4

News of the Main Astronomical (Cont.)            SOV/5466

    of comet tails and the characteristics of comets observed in
1956-57.  The collection includes a report of the Observatory's
work in compiling a catalog of the brilliancy of stars, and a
catalog of 300 stars in the constellation of Aquila.  No person-
alities are mentioned.  Each article is acompanied by references.

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News of the Main Astronomical (Cont.)                    SOV/5466

AVAILABLE:  Library of Congress

JA/dwn/jw
9-6-61

Card 4/4

S/021/60/000/006/007/019
A153/A029

AUTHORS:     Hordeladze, Sh.H.;  Lyubchenko, H.H.

TITLE:       On a Quick-Action Machine for Measuring the Brilliance and Coordinates of Stars on Negatives

PERIODICAL:  Dopovidi Akademiyi nauk Ukrayins'koyi RSR, 1960, Nr. 6, pp. 766 - 769

TEXT:     Stressing the urgency of some astrophysical problems (the problem of the structure of the Galaxy, for example), requiring for their solution the knowledge of various physical  characteristics of a large number of stars (including their brilliancy in different spectral regions), the authors emphasize the necessity for developing a quick-action measuring and computing automatic machine for dealing with such problems and discuss the basic principles of the possible design of such a machine.  The readout of the machine, operating with star photographic negatives, comprises stellar magnitudes [coordinates of centers $(x_0, y_0)$], spherical $(\alpha, \delta)$ and Cartesian coordinates of stars.  This would-be machine could measure 36,000 star coordinates per hour, giving out 6,000 stellar magnitudes. Such machines could be widely used for discovering and studying variable stars in

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S/021/60/000/006/007/019
A153/A029

On a Quick-Action Machine for Measuring the Brilliance and Coordinates of Stars on Negatives

great numbers, replacing the work effort of about 300 persons. A block diagram of such a would-be machine is given on p. 767, each component of which is described with respect to its functions and scope. There are 2 figures and 1 block diagram.

ASSOCIATION: Astronomichna observatoriya AN UkrSSR, Obchyslyuval'nyy tsentr AN UkrSSR (Astronomical Observatory of the AS UkrSSR, Computation Center of the AS UkrSSR)

PRESENTED: by B.V. Hnyedenko, Academician, AS UkrSSR

SUBMITTED: February 15, 1960

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GORDELADZE, Sh.G., kand.fiz.-mat.nauk

Into space!  Nauka i zhyttia 10 no.9:4-5 S '60.

(Astronautics)        (Air)        (MIRA 13:9)

VSEKHSVYATSKIY, Sergey Konstantinovich, doktor fiziko-matem. nauk,
    prof.; GORDELADZE, Sh.G., kand. fiziko-matem. nauk, dots.,
    otv. red.; VYADRO, Sh.Ya., red.; MATVIICHUK, A.A., tekhn.
    red.

[Current problems in the study of the nearest planets] Sov-
remennye problemy issledovaniia blizhaishikh planet.  Kiev,
Ob-vo po rasprostraneniiu polit. i nauch. znanii USSR, 1961.
48 p.                                         (MIRA 15:2)
                    (Planets—Observation)

GORDELADZE, Sh.G.;   FEDORCHENKO, G.L.

Photographic and photored magnitudes of 1,100 stars in a region with the center $\alpha = 18^h 53^m$, $\delta = +15^o,5$ (1950).   Izv. Glav. astron. obser. AN URSR β no. 2:112-131 '61.                                                      (MIRA 14:5)
                                (Stars—Magnitudes)